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Western Sales & Manufacturing
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PRC

May 5, 1978

DPM 256-1
Sealant, Low Adhesion Gun Type

Douglas Aircraft Company
3855 Lakewood Boulevard
Long Beach, California 90846

Attention: Mr. M. J. Veneroso, Dept. C1-726 (52-11)

Gentlemen: Your Reference: C1-725-75

In answer to your referenced letter of April 25, 1978 requesting shipping and other regulatory information for our products PR-1321-A and PR-1321-B, we are providing the following information: Both products are packaged as two component kits, each consisting of a Part A and a Part B.

PR-1321-A:	Part A	Part B
DOT Shipping Name:	Oxidizing Material, N.O.S.	Cement, Liquid, N.O.S.
DOT Hazard Classification:	Oxidizer	Flammable Liquid
Flash Point (PMCC):	Not applicable	>20°F, <73°F. (actual 26°F)
IATA Article No:	1336	387

PR-1321-B:	Part A (is the Accelerator*)	Part B
DOT Shipping Name:	Oxidizing Material, N.O.S.	Not regulated
DOT Hazard Classification:	Oxidizer	-
Flash Point (PMCC):	Not applicable	-
IATA Article No:	1336	-

DPM 256-1

Neither PR-1321-A nor PR-1321-B is photochemically reactive.

Material Safety Data Sheets for both products are being forwarded to you separately.

We hope this has answered your questions. If we can be of further assistance, please contact our area representative, Mr. Jack M. Dyer, at the above address and telephone, or our office.

Very truly yours,

PRODUCTS RESEARCH & CHEMICAL CORPORATION

John Chinn, Engineer
Engineering Service Department

JC:mh
cc: Jack M. Dyer

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Cable Address
"PRORECO"

SURFACE PREPARATION

To obtain uniform adhesion, the surface should be cleaned with an oil-free solvent which will dissolve oil and wax. A progressive cleaning procedure should be used. Wash one small area at a time – then dry with a clean cloth before the solvent evaporates to prevent redeposition of the oil or wax on the surface.

Always pour the solvent on the washing cloth to maintain a clean solvent supply.

MIXING INSTRUCTIONS

A. Standard Containers

When procured in small kits or bulk, PR-1321 Class A should be mixed as follows:

1. Thoroughly stir the accelerator in its container until an even consistency is obtained.
2. When packaged in bulk, mix one part (by weight) of accelerator with ten parts (by weight) of base compound. When packaged in kits, the quantity of accelerator and compound are furnished in the proper proportions. The entire contents of the accelerator container should be added to the compound.
3. Slowly stir the accelerator into the compound and thoroughly mix approximately 7 to 10 minutes. Be sure to scrape the sides and bottom of the container in order to include all the compound in the mixture. Scrape mixing paddle periodically to remove unmixed compound. Slow mixing by hand is recommended. Mechanical mixing of material with less than a 2-hour application life is not recommended. The A-2 compound may be mixed by a slow speed mechanical mixer. A high speed mechanical mixer will generate internal heat and reduce the application life.
4. A standard gallon-capacity paint shaker (1350 vibrations/minute) may be used to mix all kit sizes. Add the entire accelerator to the base compound, replace the container lid, and vibrate 3½ to 5 minutes in an upright position. Remove container, open, and scrape down the sides with a spatula or putty knife. Replace lid and vibrate in an inverted position for 3½ to 5 minutes.

Note: Proper mixing and correct proportions are extremely important if optimum results are to be obtained. Mixing the compound by experienced personnel at some central location is recommended.

B. Semkit Two-Part Sealant Cartridges

1. Wear safety glasses.
2. Hold cartridge, grasp dasher rod and pull back approximately one inch.
3. Insert ramrod into hollow of dasher rod, break piston loose and inject about 1/3 of the contents into the cartridge.

Note: Use even pressure, do not use force, tap, pound or jolt ramrod if piston does not break loose readily.

4. Repeat Step 2 and 3 until all of the contents of the rod are emptied into the cartridge. Then remove ramrod.
5. Hand Mix: Mix material for a total of 50 strokes; a stroke is one complete in and out cycle. Hold cartridge and rotate dasher rod 90° in a spiral clockwise motion with each stroke.
6. Machine Mix: Mix material for 3 minutes. Remove Semkit from mixer.
7. Remove bottom cap.
8. Pull dasher rod back to neck of cartridge, grasp cartridge firmly at neck, unscrew dasher rod and remove.
9. Screw nozzle into cartridge, insert into Semco Extrusion Gun and use as required. For hand extrusion, press used dasher rod against plunger to force material from cartridge.

APPLICATION LIFE

Application life is the period of time that the mixed compound remains at a consistency suitable for application with a brush. Application life is always based on standard conditions of 75°F and 50% relative humidity. For every 15°F rise in temperature, application life is reduced by half and for every 15°F drop, it is doubled. High humidity at time of mixing also shortens the application life.

APPLICATION INSTRUCTIONS

PR-1321 Class A may be used as a gasket for various installations since it will mold to irregularities in the faying surfaces and cure into a solid rubber. It is normally applied in seams where easy separation of the joined surfaces may be required at a later date. On most applications the parts are joined by bolts or screws. The uncured sealant squeezes into all small gaps around shanks of bolts or screws when they are tightened and provides an excellent seal.

By special preparation of the surface, various degrees of adhesion may be obtained. Apply on a clean metal surface for ½ to 1 pound adhesion. Apply over a prime coat of PR-1005-L for an excess of 25 pounds adhesion. Apply over a thin film of lubricating oil to prevent adhesion. Any combination may be used to obtain desired adhesion on each surface.

PR-1321 Class A is used to seal the faying surface of access doors in integral fuel tanks and pressurized cabins. It is also used on inspection plates, booster pumps, liquidometers, and dump valve assemblies.

When parts are removed, peel off old gasket and apply new PR-1321 Class A when parts are reinstalled.

PROCEDURE

1. Clean all faying surfaces.
2. Apply a film of PR-1321 Class A, 1/32" to 1/16" thick on faying surface of part.
3. Install part immediately. Tighten bolts or screws to obtain as nearly as possible, a metal-to-metal contact. This squeezes out excess sealant, leaving only enough to fill remaining gaps.

Note: Integral fuel tanks may be filled with fuel 45 minutes after application of sealant.

CURE

The length of cure period depends on the application life, temperature, and relative humidity. The temperature relationship is approximately the same as it is for application life. Low humidities will extend the cure time. Cure may be accelerated by applying heat up to 120°F.

CLEANING OF EQUIPMENT

1. Wash equipment and tools with a chlorinated solvent immediately after use or before sealant cures.
2. Low adhesion of PR-1321 Class A permits completely cured sealant remaining on accessible portions of equipment to be peeled off by hand.
3. Use commercially available integral fuel tank stripping compound to remove sealant that has cured on such inaccessible areas as the interior of extrusion guns. Such compounds are available from the following companies:

CEE BEE CHEMICAL CO., INC.	Los Angeles
KELITE CORPORATION, INC.	Los Angeles
PENNWALT CORPORATION	Los Angeles
TURCO PRODUCTS, INC.	Los Angeles
WYANDOTTE CHEMICALS CORP.	Wyandotte, Michigan

STORAGE LIFE

Storage life of PR-1321 Class A is six months when stored at temperatures below 80°F in their original unopened containers. Slight changes in the application properties may occur during storage, but these changes should not affect the performance properties of the cured material.

SAFETY PRECAUTIONS

WARNING: CONTAINS FLAMMABLE AND VOLATILE SOLVENTS.

Keep away from heat, sparks, and flame. Proper safety precautions used with flammable material must be taken when applying this product. Comply with all local safety regulations.

HEALTH PRECAUTIONS

PR-1321 Class A and related products have been proven to be safe materials to handle when reasonable care is observed. The accelerator contains a lead compound. Avoid repeated or prolonged contact with the skin, especially contact with open breaks in the skin, and ingestion. Always wash hands before eating or smoking. If accelerator contacts the skin, flush area with warm water. Obtain medical attention in cases of extreme exposure or ingestion.

PR-1321 Class A contains a small quantity of methyl ethyl ketone. The maximum allowable concentration in air is 250 parts per million for safe working conditions. (Refer to *Dangerous Properties of Industrial Materials* by N. Irving Sax.) Use adequate ventilation or air-supplied respirators during application. Avoid repeated or prolonged breathing of vapors. In cases of extreme vapor exposure, remove affected personnel to fresh air immediately and obtain medical attention.